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CAPTAIN FABIAN GOTTLIEB VON BELLINGSHAUSEN,
1819-1821.

THE DISCOVERY OF ALEXANDER I., PETER I.,
AND OTHER ISLANDS.

BY

F. A. COOK.

While the American sealers were swarming in the Antarctic waters and searching every rock for fur seals, two Russian exploring vessels suddenly appeared among them. These were the *Vostok* and the *Mirny*, commanded by Captains Bellingshausen and Lazarew. It is unfortunate that the record of this important expedition was published only in the Russian language, for, because of this, the far-reaching results have been largely lost. The Russian voyage is marked on the Admiralty charts, but all the chroniclers to the present time have either omitted this voyage or passed it over by a few vague statements. Bellingshausen and Lazarew made one of the most notable voyages in the Antarctic, and they deserve to take their place in the first rank of South Polar explorers. They gained for Russia the honour of having discovered the first land beyond the Antarctic Circle. They circumnavigated the globe closer to the regions of perpetual ice than did Captain Cook, and altogether the Russian Antarctic efforts are to be classed as second only to those of Cook and Ross.

Baron Fabian Gottlieb von Bellingshausen was captain of the *Vostok*, and commanded the expedition. He was one of the officers of Admiral Krusenstern's staff on a voyage around the world in 1804, and this Antarctic voyage of Bellingshausen's was one of several enterprises fostered by the Russian Government to display the increasing strength of its navy. It is not known whether the Russians were ambitious to find sealing grounds in the far south, but it is probable that they expected to find new regions comparable to those of the Bering Sea area.

The two vessels, the *Vostok* and the *Mirny*, were slow, cumbersome sailing crafts. They left the Russian harbor of Kronstadt in 1819, and Bellingshausen was instructed by Alexander I. to push as far south as possible. The vessels were sailed down the Atlantic, and on December 15th South Georgia was sighted. Sailing around

the southern termination of this land, the commander next took a course southwesterly for Cook's Sandwich Land. On this track he discovered a lofty island on January 3, 1820, the position of which was latitude $56^{\circ} 41' S.$, and longitude $28^{\circ} 9' W.$ Greenwich. On the following day two more islands were discovered. To this group of three islands was given the name Traversay Islands, in honor of the Russian Minister of Marine. One of them was an active volcano, and this was named Savadovskii.

On January 8th, Bellingshausen reached the Candlemas Islands, the most northern group of Sandwich Land. After cruising here for a few days, Bellingshausen was convinced that Cook's discovery was not a part of a large land, but a detached group of small islands far away from any mainland. Continuing southward, the vessels were forced through fog and storm over a rough sea to the edge of the pack-ice. After reaching $60^{\circ} 10' S.$ on longitude $28^{\circ} W.$ the sea was so closely packed by drifting ice that it was necessary to retreat northward. A second attempt was made further eastward and proved equally unsuccessful, but in a third attempt made still farther eastward, he was able to take a course almost due south to latitude $69^{\circ} 21' S.$ on longitude $2^{\circ} 15' W.$, where he was stopped by an impenetrable pack on January 28th. Again the vessels were pushed northward and eastward, and on February 2d they were on longitude $1^{\circ} 11' W.$ and latitude $66^{\circ} 25' S.$ Here the ice was also closely packed and the course was laid still farther eastward, always in the hope that an opening would be found poleward. At latitude $65^{\circ} S.$ and longitude $18^{\circ} E.$ the wind and ice seemed more favorable, and here another effort was made to push into the frozen south.

Through waters fairly free of sea ice, though liberally strewn with large icebergs, the vessels were forced to $69^{\circ} 6' S.$, where they were again stopped by closely-packed ice. During February 17th and 18th successive efforts were made to find a passage southward; but the south was everywhere guarded by an endless sea of ice, which it was found impossible to navigate. On the 19th all attempts at farther progress were relinquished and a course northward accordingly set. As they turned from the ice a sea-swallow (*Sterna*) was observed, and the bird was taken as an indication of a proximity to land. Their position, at the time this bird was seen, was latitude $68^{\circ} 5' S.$, longitude $16^{\circ} 37' E.$ Sailing eastward, a course was laid somewhat south of latitude 65° to longitude $34^{\circ} E.$, and then pressing a little southward at $40^{\circ} 56' E.$, latitude $66^{\circ} 53' S.$ was attained. Here the ice was again found so dense

that further attempts to penetrate it were thought to be useless. The course was now continued along latitude $62^{\circ} 30'$ S. as far as longitude 69° E. Here Bellingshausen took a more northerly course, but still somewhat below 60° S. to 88° E., from whence, in the latter part of March, while surrounded by drift ice and hampered by fog and storms, he laid a course for Port Jackson (Sydney), New South Wales.

The southern winter was spent in exploring the Paumotu group, and, as the summer advanced, Bellingshausen left Sydney for another Antarctic cruise. His course was, at first, almost due south. On December 10th, 1820, he encountered the first icebergs in latitude $62^{\circ} 18'$ S., and longitude $164^{\circ} 13'$ E., and soon after a dense pack barred progress, whereupon a more easterly course was set. This pack differed from that which was seen during the previous season in the larger number and increased dimensions of the icebergs mixed with the field ice. One of these huge table-topped masses was estimated to be seven miles long. The voyage was continued to the eastward, and the number of icebergs still increased—so much so that at one time upwards of one hundred were counted from the masts. After many trying experiences in navigating ice-strewn seas through fogs and tempests, Bellingshausen at length reached what seemed to him to be the end of the pack-ice, for on December 14th, beyond to the south and east, there was an open sea full of promise. Sailing continually over these waters eastward crossing the Antarctic Circle, and always edging southward with every favorable wind, at the end of a week he was again confronted by the discouraging line of impenetrable ice. Again large numbers of great icebergs were seen, one of which is said to have been eleven miles long.

Returning a second time to 60° S., the vessels were forced eastward; but soon their course was again set southward, and on longitude 120° W., latitude of $67^{\circ} 50'$ S. was made on January 13th, 1821. Again they were headed off by a dense pack-ice, and again they returned northward to 63° S., where they continued to press to the eastward. On 103° W. longitude, Bellingshausen crossed the Antarctic Circle for the sixth time.

The farthest point south reached by the Russians was here attained in an easterly cruise along the pack edge. Led on by a remarkably bright iceblink, they penetrated a bight in the pack at longitude $92^{\circ} 19'$ W., and reached latitude $69^{\circ} 53'$ S. on January 22d. Here, however, Bellingshausen was again compelled to seek the more favorable waters northward, because of the unyielding pack

to the south and the dangerous tongues of drift-ice about him, which threatened to ensnare the ships. While steering northward from their farthest south the explorers perceived, far to the eastward in the afternoon of the same day, a small dark spot, which quickly aroused their interest. As the weather cleared, this spot was made out to be a high, snow-covered land. The vessels were hove to, and on the following day, by a nearer approach, an opportunity was afforded for a more careful survey of the land.

The newly-discovered land proved to be a single island, with an estimated altitude of over 4,000 feet. It was called Peter I. Island, and its position was fixed at latitude $68^{\circ} 57' S.$, longitude $90^{\circ} 46' W.$ Being convinced that more land was to be found in this region, Bellingshausen sailed eastward at a safe distance from the pack-edge in latitude about $68^{\circ} 30'$. On January 29th, 1821, his anticipations were realized, for, looking eastward far beyond the pack-ice, he saw what to him appeared like the coast of a large country, offering a prominent cape. Though eager to make a closer examination of the land, it was found that the pack-ice would not permit a nearer approach than a point forty miles to the west. The discovery was named, in honor of the Tsar, Alexander I.'s Coast, but it has been charted Alexander I. Land. The most prominent cape seen from Bellingshausen's position was placed on latitude $68^{\circ} 43' S.$ and longitude $73^{\circ} 10' W.$ From here a course was set northeastward, at some distance from Graham Land, to the South Shetland Islands, where the American sealers were met. The homeward voyage was by way of the South Orkneys and South Georgia, and Kronstadt was reached in July, 1821. Bellingshausen thus completed in two years a most successful voyage of exploration around the world in high southern latitudes.

In the French and the Russian mind there still survived a faint belief in a great Austral continent, but this sweeping voyage of Bellingshausen and Lazarew dispelled the last hope of discovering any large and commercially useful land towards the south pole.

The *Belgica* sailed somewhat closer to Alexander I.'s Coast, and upon her I made the following entry in my log:

S.S. *Belgica*, February 16th, 1898.

At noon our latitude is $67^{\circ} 58'$ south, the longitude $69^{\circ} 53'$ west of Greenwich. We haul a little westward of the outer drift of the pack, and Alexander Land rises up over our port bow, still forty or fifty miles away. There are scattered in the waters westward, and in the pack eastward, forty-four icebergs of moderate size. About half of these are tabular in form; the other half are of the pin-

nacled and sea-washed or weather-worn variety. A few small black-billed penguins are in the water, darting over the surface and again into the deep with electric swiftness. Close to the pack-ice there rises from the black surface of the sea a number of columns of vapour-like jets. Through our glasses we see under these the blue-black backs of whales, with large dorsal fins, and occasionally a ponderous tail whips the water into a foamy whirlpool. On some of the pans of ice are seals basking in the sun, and over the ship, apparently touching the masts and the ropes as the bark rocks to and fro, are giant petrels, Cape pigeons, gulls, white, brown, and blue petrels, all pointing their bills and stretching their necks to examine, perhaps for the first time, human beings and their crafts.

There is a dreamy stillness in the air, in spite of the frequent stir of wild life, and a charming touch of colour to the sea, the ice, and the land, though the sky is dull, gray, and gloomy. At first glance all seems white and black, and we are impressed with the weight of the awful snowy solitude into which we are entering. A sense of chilly loneliness is more and more forced upon us by the passing panorama of snow and ice and deserted rocks. But, critically considered, after the first pangs of desolation have passed there are a few of us who find cheer and fascinating colour in the harmony of the perennial chilliness before us. This morning there was a break in the clouds, and through this came a flood of yellow light which made the bergs studding the sea and the icy cliffs of Alexander Land stand out like walls of gold. Shortly after noon a pale blue was thrown over the white glitter of the pack, which increased the high lights, darkened the shadows, and made the moving mass of whiteness, as it rose and fell with the giant wave of the sea, a thing of gladness.

At four o'clock in the afternoon we had made a rough outline of the new land before us. It proved to be a group of islands (Alexander Islands) about twenty-five miles long and from ten to fifteen miles wide. There is one large central island, about eighteen miles long, with a high ridge of mountains running approximately from east to west. In this ridge there are three peaks, not less than four thousand five hundred feet in altitude. These are quite pyramidal in form, and are covered with snow to their summits, with only an occasional bare, perpendicular rock. This ridge of mountains tapers gradually towards the west and terminates abruptly in the east. Running parallel to this central ridge, about four miles southward, there is a lesser chain of mountains, about two thousand feet high, whose sides sink almost perpendicularly into

the sea. There is also a similar ridge to the southward. The two valleys between these three ridges of mountains are filled with great streams of glacial ice. We had a splendid view of these glaciers as we passed about twenty miles off the western end of an island. The northern valley is rough, much crevassed, and generally irregular, extending its tongue out over the sea for several miles. The valley south of the central ridge appeared like a great plain, with easy slopes towards the sea, where the frozen mass seemed to project over the waters for a short distance. Around this one large island are a number of small islands—angular, rocky masses, mostly covered with caps of glacial ice. These, from a greater distance, appeared to be a part of the main central land mass. The vast numbers of icebergs to the eastward of the land gave it also, from a greater distance, the appearance of being connected with some larger land; but from our various positions we were able to make out distinctly that the islands are a separate group, with no other land within sight to the east. Our positions—northward in the morning and southward during the night—proved this. We saw some signs of land to the south during the afternoon, but these vanished later. It was evidently a mirage.